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WHAT IS CLAIMED IS:

1. A method of producing a polypeptide comprising an analog of a Major Histocompatibility Complex (MHC) class I peptide epitope, wherein said analog has enhanced immunogenicity compared to said epitope, said method comprising:

(a) identifying a MHC class I epitope comprising a formula (A),

wherein formula (A) is $R_n - R_2 - R_3 - R_4 - R_5 - R_6 - R_7 - \dots - R_x$,

R_n is the N-terminal amino acid,

R_x is the C-terminal amino acid,

$x=8-11$ such that R_x can be from the eighth to the eleventh amino acid residue from R_n ,

R_2 or R_3 and R_x are primary anchor residues of a motif or supermotif, and

(b) producing a polypeptide comprising an analog, said analog comprising a formula (B) identical to said formula (A) except one or more conservative or semiconservative amino acid substitutions at R_3 and/or R_5 and/or R_7 , provided said one or more substitutions is not of a primary anchor residues.

2. The method of claim 1, which comprises:

(a) identifying a MHC class I epitope comprising a formula (A),

wherein formula (A) is $R_n - R_2 - R_3 - R_4 - R_5 - R_6 - R_7 - \dots - R_x$,

R_n is the N-terminal amino acid,

R_x is the C-terminal amino acid,

$x=8-11$ such that R_x can be from the eighth to the eleventh amino acid residue from R_n ,

R_2 or R_3 and R_x are primary anchor residues of a motif or supermotif, and

R_3 is Ile, and

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- (b) producing a polypeptide comprising an analog, said analog comprising a formula (B) identical to said formula (A) except that R3 is Met.

3. The method of claim 1, which comprises:

- (a) identifying a MHC class I peptide epitope comprising a formula (A),

wherein formula (A) is R_n - R2 - R3 - R4 - R5 - R6 - R7 - R_x,

R_n is the N-terminal amino acid,

R_x is the C-terminal amino acid,

x=8-11 such that R_x can be from the eighth to the eleventh amino acid residue

from R_n,

R2 or R3 and R_x are primary anchor residues of a motif or supermotif, and

R7 is Tyr, and

- (b) producing a polypeptide comprising an analog, said analog comprising a formula

(B) identical to said formula (A) except that R7 is His.

4. The method of claim 1, which comprises:

- (a) identifying a MHC class I peptide epitope comprising a formula (A),

wherein formula (A) is R_n - R2 - R3 - R4 - R5 - R6 - R7 - R_x,

R_n is the N-terminal amino acid,

R_x is the C-terminal amino acid,

x=8-11 such that R_x can be from the eighth to the eleventh amino acid residue

from R_n,

R2 or R3 and R_x are primary anchor residues of a motif or supermotif, and

R7 is Tyr, and

- (b) producing a polypeptide comprising an analog, said analog comprising a formula (B) identical to said formula (A) except that R7 is Met.

5. The method of claim 1, wherein the second Class I epitope exhibits at least about 50% increased potency for a specific T-cell compared to the first Class I epitope.

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6. The method of claim 1, wherein only one substitution is introduced.
7. The method of claim 1, wherein the substitution is a conservative substitution.
8. The method of claim 1, wherein the substitution is a semi-conservative substitution.
9. The method of claim 1, wherein the peptide comprising said second Class I epitope induces both Th1 and Th2 cytokines when said peptide is bound by an HLA Class I molecule and contacted with a cytotoxic T-cell.
10. The method of claim 1, wherein the first Class I epitope comprises a supermotif selected from the group consisting of A1, A2, A3, A24, B7, B27, B44, B58 and B62.
11. The method of claim 1, wherein the first Class I epitope is derived from a viral antigen, a tumor-associated antigen, a parasitic antigen, a bacterial antigen or a fungal antigen.
12. A peptide comprising the second Class I epitope prepared by the method of claim 1.
13. A method to elicit an immune response which method comprises contacting cytotoxic T lymphocytes (CTLs) with the peptide of claim 9.
14. The method of claim 10, wherein the step of contacting is carried out *in vitro* in the presence of an antigen presenting cell.

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15. The method of claim 10, wherein said contacting is carried out by administering to a subject a nucleic acid molecule comprising a nucleotide sequence encoding said peptide.

16. A composition comprising at least one peptide, the peptide comprising a Class I epitope obtainable by the method of claim 1.

17. The composition of claim 13, wherein the peptide contains 9-15 amino acids.

18. The composition of claim 13, wherein the peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:56, SEQ ID NO:58 and SEQ ID NO:59.

19. A composition of claim 13, wherein the peptide is admixed or joined to a CTL epitope.

20. A composition of claim 13, wherein the peptide is admixed or joined to an HTL epitope.

21. A composition of claim 17, wherein the HTL epitope is a pan-DR binding molecule.

22. A composition of claim 13, further comprising a liposome.

23. A composition of claim 13, wherein the epitope is coupled to a lipid.

24. A composition of claim 13, wherein said epitope is included in a heteropolymer.

25. A composition of claim 13, wherein the epitope is included in a homopolymer.

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26. A composition of claim 13, wherein the epitope is bound to an HLA heavy chain, β 2-microglobulin, and streptavidin complex, whereby a tetramer is formed.

27. A composition of claim 13, further comprising an antigen presenting cell, wherein the epitope is on or within the antigen presenting cell.

28. A composition of claim 24, wherein the epitope is bound to an HLA molecule on the antigen presenting cell, whereby when a cytotoxic lymphocyte (CTL) that is restricted to the HLA molecule is present, a receptor of the CTL binds to a complex of the HLA molecule and the epitope.

29. A composition of claim 25, wherein the antigen presenting cell is a dendritic cell.

30. A composition of claim 13, further comprising an HLA molecule, wherein the peptide is bound by the HLA molecule.

31. A composition of claim 13, further comprising a label.

32. A composition of claim 28, wherein the label is biotin, a fluorescent moiety, a non-mammalian sugar, a radio label or a small molecule to which a monoclonal antibody binds.

33. The composition of claim 13 which is a vaccine containing:
a unit dosage of said peptide, and a pharmaceutical excipient.

34. A nucleic acid molecule comprising a nucleotide sequence encoding a peptide of 9-15 amino acids which comprises a second Class I epitope obtainable by the method of claim 1.

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35. The nucleic acid molecule of claim 31 wherein said peptide comprises an epitope consisting of an amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:56, SEQ ID NO:58 and SEQ ID NO:59.

36. The nucleic acid molecule of claim 32 which further comprises control sequences for expression of said nucleotide sequence.

37. A pharmaceutical composition which comprises as active ingredient the nucleic acid molecule of claim 31.

38. A method of producing a polypeptide comprising an analog of a Major Histocompatibility Complex (MHC) class I peptide epitope,

wherein said analog has enhanced immunogenicity compared to said epitope, said method comprising:

(a) identifying a MHC class I epitope comprising a formula (A),

wherein formula (A) is $R_n - R_2 - R_3 - R_4 - R_5 - R_6 - R_7 - \dots - R_x$,

R_n is the N-terminal amino acid,

R_x is the C-terminal amino acid,

$x=8-11$ such that R_x can be from the eighth to the eleventh amino acid residue from R_n ,

R_2 and R_x are primary anchor residues of a B7 supermotif, and

(b) producing a polypeptide comprising an analog, said analog comprising a formula (B) identical to said formula (A) except that one or more than one of R_3 and/or R_5 and/or R_7 comprise a non-conservative amino acid substitution.

39. The method of claim 35, which comprises:

(a) identifying a class I peptide epitope comprising a formula (A),

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wherein formula (A) is $R_n - R_2 - R_3 - R_4 - R_5 - R_6 - R_7 - \dots - R_x$,

R_n is the N-terminal amino acid,

R_x is the C-terminal amino acid,

$x=8-11$ such that R_x can be from the eighth to the eleventh amino acid residue from R_n ,

R_2 and R_x are primary anchor residues of a B7 supermotif, and

R_7 is Tyr, and

producing a polypeptide comprising an analog, said analog comprising a formula (B) identical to said formula (A) except that Tyr is replaced with Gly, Glu, or Asp at R_7 .

40. A polypeptide comprising at least one heteroclitic analog of carcinoembryonic antigen (CEA) selected from the group consisting of:

- (a) the heteroclitic analog HLPYYSWK (SEQ ID NO:11);
- (b) the heteroclitic analog HLFYYSWK (SEQ ID NO:13);
- (c) the heteroclitic analog HLFYYSWK (SEQ ID NO:14);
- (d) the heteroclitic analog HLFYYSWK (SEQ ID NO:15);
- (e) the heteroclitic analog HLFYYSWK (SEQ ID NO:16);
- (f) the heteroclitic analog HLFYYSWK (SEQ ID NO:17); and
- (g) the heteroclitic analog HLFYYSWK (SEQ ID NO:18).

41. The polypeptide of claim 40, which comprises more than one heteroclitic analog of CEA.

42. The polypeptide of claim 40 or 41, which comprises at least one peptide selected from the group consisting of the CEA epitopes and analogs in Tables 7, 13-15 and 18.

43. The polypeptide of any of claims 40-42, which comprises a fragment of CEA selected from the group consisting of:

- (a) amino acids 61-69 of SEQ ID NO:68;

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(b) amino acids 61-70, 61-71, 61-72, , 61-73, 61-74, 61-75, 61-76, 61-77, 61-78, 61-79, 61-80, 61-81, 61-82, 61-83, 61-84, 61-85, 61-86, 61-87, 61-88, 61-89, 61-90, 61-91, 61-92, 61-93, 61-94, 61-95, 61-96, 61-97, 61-98, 61-99, 61-100, 61-101, 61-102, 61-103, 61-104, 61-105, 61-106, 61-107, 61-108, 61-109, 61-110, 61-111, 61-112, 61-113, 61-114, 61-115, 61-116, 61-117, 61-118, 61-119, 61-120, 61-121, 61-122, 61-123, 61-124, 61-125, 61-126, 61-127, 61-128, 61-129, 61-130, 61-131, 61-132, 61-133, 61-134, 61-135, 61-136, 61-137, 61-138, 61-139, 61-140, 61-141, 61-142, 61-143, 61-144, 61-145, 61-146, 61-147, 61-148, 61-149, 61-150, 61-151, 61-152, 61-153, 61-154, 61-155, 61-156, 61-157, 61-158, 61-159, 61-160, 61-161, 61-162, 61-163, 61-164, 61-165, 61-166, 61-167, 61-168, 61-169, 61-170, 61-171, 61-172, 61-173, 61-174, 61-175, 61-176, 61-177, 61-178, 61-179, 61-180, 61-181, 61-182, 61-183, 61-184, 61-185, 61-186, 61-187, 61-188, 61-189, 61-190, 61-191, 61-192, 61-193, 61-194, 61-195, 61-196, 61-197, 61-198, 61-199, 61-200, 61-201, 61-202, 61-203, 61-204, 61-205, 61-206, 61-207, 61-208, 61-209, 61-210, 61-211, 61-212, 61-213, 61-214, 61-215, 61-216, 61-217, 61-218, 61-219, 61-220, 61-221, 61-222, 61-223, 61-224, 61-225, 61-226, 61-227, 61-228, 61-229, 61-230, 61-231, 61-232, 61-233, 61-234, 61-235, 61-236, 61-237, 61-238, 61-239, 61-240, 61-241, 61-242, 61-243, 61-244, 61-245, 61-246, 61-247, 61-248, 61-249, 61-250, 61-251, 61-252, 61-253, 61-254, 61-255, 61-256, 61-257, 61-258, 61-259, 61-260, 61-261, 61-262, 61-263, 61-264, 61-265, 61-266, 61-267, 61-268, 61-269, 61-270, 61-271, 61-272, 61-273, 61-274, 61-275, 61-276, 61-277, 61-278, 61-279, 61-280, 61-281, 61-282, 61-283, 61-284, 61-285, 61-286, 61-287, 61-288, 61-289, 61-290, 61-291, 61-292, 61-293, 61-294, 61-295, 61-296, 61-297, 61-298, 61-299, 61-300, 61-301, 61-302, 61-303, 61-304, 61-305, 61-306, 61-307, 61-308, 61-309, 61-310, 61-311, 61-312, 61-313, 61-314, 61-315, 61-316, 61-317, 61-318, 61-319, 61-320, 61-321, 61-322, 61-323, 61-324, 61-325, 61-326, 61-327, 61-328, 61-329, 61-330, 61-331, 61-332, 61-333, 61-334, 61-335, 61-336, 61-337, 61-338, 61-339, 61-340, 61-341, 61-

342, 61-343, 61-344, 61-345, 61-346, 61-347, 61-348, 61-349, 61-350, 61-351, 61-352, 61-353, 61-354, 61-355, 61-356, 61-357, 61-358, 61-359, 61-360, 61-361, 61-362, 61-363, 61-364, 61-365, 61-366, 61-367, 61-368, 61-369, 61-370, 61-371, 61-372, 61-373, 61-374, 61-375, 61-376, 61-377, 61-378, 61-379, 61-380, 61-381, 61-382, 61-383, 61-384, 61-385, 61-386, 61-387, 61-388, 61-389, 61-390, 61-391, 61-392, 61-393, 61-394, 61-395, 61-396, 61-397, 61-398, 61-399, 61-400, 61-401, 61-402, 61-403, 61-404, 61-405, 61-406, 61-407, 61-408, 61-409, 61-410, 61-411, 61-412, 61-413, 61-414, 61-415, 61-416, 61-417, 61-418, 61-419, 61-420, 61-421, 61-422, 61-423, 61-424, 61-425, 61-426, 61-427, 61-428, 61-429, 61-430, 61-431, 61-432, 61-433, 61-434, 61-435, 61-436, 61-437, 61-438, 61-439, 61-440, 61-441, 61-442, 61-443, 61-444, 61-445, 61-446, 61-447, 61-448, 61-449, 61-450, 61-451, 61-452, 61-453, 61-454, 61-455, 61-456, 61-457, 61-458, 61-459, 61-460, 61-461, 61-462, 61-463, 61-464, 61-465, 61-466, 61-467, 61-468, 61-469, 61-470, 61-471, 61-472, 61-473, 61-474, 61-475, 61-476, 61-477, 61-478, 61-479, 61-480, 61-481, 61-482, 61-483, 61-484, 61-485, 61-486, 61-487, 61-488, 61-489, 61-490, 61-491, 61-492, 61-493, 61-494, 61-495, 61-496, 61-497, 61-498, 61-499, 61-500, 61-501, 61-502, 61-503, 61-504, 61-505, 61-506, 61-507, 61-508, 61-509, 61-510, 61-511, 61-512, 61-513, 61-514, 61-515, 61-516, 61-517, 61-518, 61-519, 61-520, 61-521, 61-522, 61-523, 61-524, 61-525, 61-526, 61-527, 61-528, 61-529, 61-530, 61-531, 61-532, 61-533, 61-534, 61-535, 61-536, 61-537, 61-538, 61-539, 61-540, 61-541, 61-542, 61-543, 61-544, 61-545, 61-546, 61-547, 61-548, 61-549, 61-550, 61-551, 61-552, 61-553, 61-554, 61-555, 61-556, 61-557, 61-558, 61-559, 61-560, 61-561, 61-562, 61-563, 61-564, 61-565, 61-566, 61-567, 61-568, 61-569, 61-570, 61-571, 61-572, 61-573, 61-574, 61-575, 61-576, 61-577, 61-578, 61-579, 61-580, 61-581, 61-582, 61-583, 61-584, 61-585, 61-586, 61-587, 61-588, 61-589, 61-590, 61-591, 61-592, 61-593, 61-594, 61-595, 61-596, 61-597, 61-598, 61-599, 61-600, 61-601, 61-602, 61-603, 61-604, 61-605, 61-606, 61-607, 61-608, 61-609, 61-610, 61-611, 61-

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612, 61-613, 61-614, 61-615, 61-616, 61-617, 61-618, 61-619, 61-620, 61-621, 61-622, 61-623, 61-624, 61-625, 61-626, 61-627, 61-628, 61-629, 61-630, 61-631, 61-632, 61-633, 61-634, 61-635, 61-636, 61-637, 61-638, 61-639, 61-640, 61-641, 61-642, 61-643, 61-644, 61-645, 61-646, 61-647, 61-648, 61-649, 61-650, 61-651, 61-652, 61-653, 61-654, 61-655, 61-656, 61-657, 61-658, 61-659, 61-660, 61-661, 61-662, 61-663, 61-664, 61-665, 61-666, 61-667, 61-668, 61-669, 61-670, 61-671, 61-672, 61-673, 61-674, 61-675, 61-676, 61-677, 61-678, 61-679, 61-680, 61-681, 61-682, 61-683, 61-684, 61-685, 61-686, 61-687, 61-688, 61-689, 61-690, 61-691, 61-692, 61-693, 61-694, 61-695, 61-696, 61-697, 61-698, 61-699, 61-700, 61-701, and 61-702 of SEQ ID NO:68; and

- (c) amino acids 1-69, 2-69, 3-69, 4-69, 5-69, 6-69, 7-69, 8-69, 9-69, 10-69, 11-69, 12-69, 13-69, 14-69, 15-69, 16-69, 17-69, 18-69, 19-69, 20-69, 21-69, 22-69, 23-69, 24-69, 25-69, 26-69, 27-69, 28-69, 29-69, 30-69, 31-69, 32-69, 33-69, 34-69, 35-69, 36-69, 37-69, 38-69, 39-69, 40-69, 41-69, 42-69, 43-69, 44-69, 45-69, 46-69, 47-69, 48-69, 49-69, 50-69, 51-69, 52-69, 53-69, 54-69, 55-69, 56-69, 57-69, 58-69, 59-69, 60-69, of SEQ ID NO:68.

44. A polypeptide comprising at least one heteroclitic analog of melanoma antigen 2 (MAGE2) selected from the group consisting of:

- (a) the heteroclitic analog EYIQLVFGI (SEQ ID NO:21);
- (b) the heteroclitic analog EYLELVFGI (SEQ ID NO:22);
- (c) the heteroclitic analog EYLLLVFGI (SEQ ID NO:23);
- (d) the heteroclitic analog EYLQLMFGI (SEQ ID NO:24); and
- (e) the heteroclitic analog EYLQLLFGI (SEQ ID NO:25).

45. The polypeptide of claim 44, which comprises more than one heteroclitic analog of MAGE2.

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46. The polypeptide of claim 44 or 45, which comprises at least one peptide selected from the group consisting of the MAGE2 epitopes and analogs in Tables 7, 8, 13-15 and 18.

47. The polypeptide of any of claims 44-46, which comprises a fragment of MAGE2 selected from the group consisting of:

- (a) amino acids 157-163 -69 of SEQ ID NO:69;
- (b) 1-163, 2-163, 3-163, 4-163, 5-163, 6-163, 7-163, 8-163, 9-163, 10-163, 11-163, 12-163, 13-163, 14-163, 15-163, 16-163, 17-163, 18-163, 19-163, 20-163, 21-163, 22-163, 23-163, 24-163, 25-163, 26-163, 27-163, 28-163, 29-163, 30-163, 31-163, 32-163, 33-163, 34-163, 35-163, 36-163, 37-163, 38-163, 39-163, 40-163, 41-163, 42-163, 43-163, 44-163, 45-163, 46-163, 47-163, 48-163, 49-163, 50-163, 51-163, 52-163, 53-163, 54-163, 55-163, 56-163, 57-163, 58-163, 59-163, 60-163, 61-163, 62-163, 63-163, 64-163, 65-163, 66-163, 67-163, 68-163, 69-163, 70-163, 71-163, 72-163, 73-163, 74-163, 75-163, 76-163, 77-163, 78-163, 79-163, 80-163, 81-163, 82-163, 83-163, 84-163, 85-163, 86-163, 87-163, 88-163, 89-163, 90-163, 91-163, 92-163, 93-163, 94-163, 95-163, 96-163, 97-163, 98-163, 99-163, 100-163, 101-163, 102-163, 103-163, 104-163, 105-163, 106-163, 107-163, 108-163, 109-163, 110-163, 111-163, 112-163, 113-163, 114-163, 115-163, 116-163, 117-163, 118-163, 119-163, 120-163, 121-163, 122-163, 123-163, 124-163, 125-163, 126-163, 127-163, 128-163, 129-163, 130-163, 131-163, 132-163, 133-163, 134-163, 135-163, 136-163, 137-163, 138-163, 139-163, 140-163, 141-163, 142-163, 143-163, 144-163, 145-163, 146-163, 147-163, 148-163, 149-163, 150-163, 151-163, 152-163, 153-163, 154-163, 155-163, 156-163 of SEQ ID NO:69; and
- (c) amino acids 157-164, 165, 157-166, 157-167, 157-168, 157-169, 157-170, 157-171, 157-172, 157-173, 157-174, 157-175, 157-176, 157-177, 157-178, 157-179, 157-180, 157-181, 157-182, 157-183, 157-184, 157-185, 157-186, 157-187, 157-188, 157-189, 157-190, 157-191, 157-192, 157-

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193, 157-194, 157-195, 157-196, 157-197, 157-198, 157-199, 157-200, 157-201, 157-202, 157-203, 157-204, 157-205, 157-206, 157-207, 157-208, 157-209, 157-210, 157-211, 157-212, 157-213, 157-214, 157-215, 157-216, 157-217, 157-218, 157-219, 157-220, 157-221, 157-222, 157-223, 157-224, 157-225, 157-226, 157-227, 157-228, 157-229, 157-230, 157-231, 157-232, 157-233, 157-234, 157-235, 157-236, 157-237, 157-238, 157-239, 157-240, 157-241, 157-242, 157-243, 157-244, 157-245, 157-246, 157-247, 157-248, 157-249, 157-250, 157-251, 157-252, 157-253, 157-254, 157-255, 157-256, 157-257, 157-258, 157-259, 157-260, 157-261, 157-262, 157-263, 157-264, 157-265, 157-266, 157-267, 157-268, 157-269, 157-270, 157-271, 157-272, 157-273, 157-274, 157-275, 157-276, 157-277, 157-278, 157-279, 157-280, 157-281, 157-282, 157-283, 157-284, 157-285, 157-286, 157-287, 157-288, 157-289, 157-290, 157-291, 157-292, 157-293, 157-294, 157-295, 157-296, 157-297, 157-298, 157-299, 157-300, 157-301, 157-302, 157-303, 157-304, 157-305, 157-306, 157-307, 157-308, 157-309, 157-310, 157-311, 157-312, 157-313, 157-314 of SEQ ID NO:69.

48. The polypeptide of any of claims 40-47, which comprises at least one peptide selected from the group consisting of the p53, CEA, MAGE2, MAGE3, Her2/neu, epitopes and analogs in Tables 13-15 and 18.

49. The polypeptide of any of claims 40-48, which comprises at least one T helper peptide.

50. The polypeptide of claim 49, wherein at least one of said at least one T helper peptide is selected from the group consisting of: aKXVAAWTLKAAa, where "X" is either cyclohexylalanine (SEQ ID NO:29), phenylalanine (SEQ ID NO:30), or tyrosine (SEQ ID NO:31), and "a" is either D-alanine or L-alanine.

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51. The polypeptide of any of claims 40-50, which comprises at least one spacer.
52. The polypeptide of any of claims 40-51, which comprises at least one leader.
53. A polynucleotide encoding the polypeptide of any of claims 40-52.
54. A composition comprising at least one polypeptide of any of claims 40-52 or at least one polynucleotide of claim 53 and at least one component selected from the group consisting of: an excipient; an adjuvant; and a lipid.
55. A composition comprising two or more polypeptides of any of claims 40-52.
56. A composition comprising two or more polynucleotides of claim 53.
57. The composition of claim 55 or 56, which comprises at least one component selected from the group consisting of: and excipient; and adjuvant; and a lipid.
58. The composition of any of claims 54-57, which comprises an HLA heavy chain, β 2-microglobulin, and streptavidin.
59. The composition of claim 58, wherein said polypeptide is bound to a complex of said HLA heavy chain, β 2-microglobulin, and streptavidin, whereby a tetramer is formed.
60. The composition of any of claims 54-58, comprising an antigen presenting cell, wherein the polypeptide is on or within the antigen presenting cell.
61. The composition of claim 60, wherein the polypeptide is bound to an HLA molecule on the antigen presenting cell, whereby when a cytotoxic T lymphocyte (CTL) that is restricted to the HLA molecule is present, a receptor of the CTL binds to a complex of the HLA molecule and the epitope.

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62. The polynucleotide of claim 53, which comprises at least one control sequence.

63. A composition comprising the polynucleotide of claim 62 and a component selected from the group consisting of: an excipient; an adjuvant; and a lipid.